

REMARKS

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Summary of the Interview

Applicants express appreciation to the Examiner (Kallambella Vijaykumar) for the courtesy of the telephone interview held on June 4, 2010, with applicants' representative, Kumar Maheshwari (Reg. No. 60,443). In the interview, the Kobayashi et al. (WO 2003-100795 as evidence by U.S. Patent Publication No. 2004/0237294; hereinafter Kobayashi '294) reference was discussed. More specifically, applicants' representative explained that Kobayashi '294 does not qualify as prior art under Section 102 and 103, if the Applicants perfect the priority claim to Japanese Patent Application No. 2003-324493. The Examiner agreed with the Applicants' representative that upon the submission of a translated priority document (Japanese Patent Application No. 2003-324493) the Kobayashi '294 will not qualify as prior art.

Status of the Claims

Claims 1, 4, 11, 15, 18 and 19 are currently being amended. Claims 23 and 24 are added. The features of the amended and added claims are disclosed in the Original Specification, for example, at page 5, lines 1-9, page 24, lines 12-15, page 31, lines 3-12 and Tables 1 and 2. Thus, no new matter is added.

Claims Rejections under 35 U.S.C. 103

Claims 1-22 are rejected under 35 U.S.C. §103 (a) as being obvious over Li et al. (U.S. Patent No. 6,555,503). Claims 1-22 are rejected under 35 U.S.C. §103 (a) as being obvious over Kobayashi '294. Claims 1-22 are rejected under 35 U.S.C. §103 (a) as being obvious over Kobayashi et al. (U.S. Patent Publication No. 2002/0022576; hereinafter Kobayashi '576) in view of Kobayashi et al. '294. These rejections are respectfully traversed.

Rejection Relating To The Li et al. Reference

Claims 1, 4, and 11, as amended, recite a superconducting device that includes, an oxide superconductor exhibiting sintering density of at least 93% by the Bi2223 phase

crystals exhibiting a reduced number of gaps between the Bi2223 crystals due to plastic flow of the Bi2223 phase crystals. The references of record, alone or in combination, fail to teach or suggest at least the above recited features of claims 1, 4 and 11.

For example, Li et al. do not disclose the oxide superconductor exhibiting sintering density of at least 93% by Bi2223 phase crystals exhibiting a reduced number of gaps between the Bi2223 crystals due to plastic flow of the Bi2223 phase crystals. Instead, Li et al. disclose a desire to have the composite that is substantially free of cracks and defects as observed under an optical microscope. (Column 6, lines 10-17) While discussing precursor materials and their densities, Li et al. discloses that highly dense oxides possess densities that are greater than 80%, and most preferably greater than 90%, and theoretically the material has no pores, spaces or voids. (Column 9, line 64 to column 10 line 8) Although Li et al. discusses materials with no pores, spaces or voids, Li et al. fails to teach or suggest reducing the number of gaps due to plastic flow. Moreover, the pores, spaces or voids that Li et al. focuses on are at the precursor stage and not during or after heat treatment. The Applicants' realized that gaps between the Bi2223 phase crystals may be increased during heat treatment due to gas expansion, and thus, claims 1, 4, and 11 use a pressurized atmosphere to prevent gas expansion in the Bi2223 phase. (Original Specification, page 5, lines 5-10) Cited portions of Li et al. lack disclosure related to plastic flow of the Bi2223 phase crystals, and thus, do not disclose a reduced number of gaps due to plastic flow.

Accordingly, claims 1, 4, and 11 are believed to be allowable. Because claims 2-22, directly or indirectly, depend from claims 1, 4, and 11, they are believed to be allowable for at least the same reasons claims 1, 4, and 11 are believed to be allowable.

Rejections Relating To The Kobayashi References

Claims 1-22 are rejected under 35 U.S.C. 103 (a) as being obvious over Kobayashi et al. (WO 2003-100795 as evidence by U.S. Patent Publication No. 2004/0237294; hereinafter Kobayashi '294). Claims 1-22 are rejected under 35 U.S.C. 103 (a) as being obvious over Kobayashi et al. (U.S. Patent Publication No. 2002/0022576; hereinafter Kobayashi '576) in view of Kobayashi et al. '294). These rejections are respectfully traversed.

Kobayashi '294

This application (Application No. 10/540,574) is the U.S. National stage of PCT/JP2004/010930 filed July 30, 2004 which claims priority from Japanese Patent Application No. 2003-324493 filed September 17, 2003. As discussed during the interview dated June 4, 2010 the Applicants submit a verified translation of the priority patent application number 2003-324493 with this response to perfect the priority claim. As agreed with the Examiner during the Examiner interview, the Kobayashi '294 reference does not qualify as prior art under 35 U.S.C. §§ 102 and 103. Accordingly, the rejections with regard to Kobayashi '294 are traversed.

Kobayashi '576

Cited portions of the Kobayashi '576 reference fail to teach or suggest the above recited feature of the present invention recited in claims 1, 4 and 11, as amended. Kobayashi '576 fails to teach or suggest reducing the number of gaps between the Bi2223 phase crystals due to plastic flow. Therefore, claims 1, 4, and 11 are believed to be allowable. Because claims 2-22, directly or indirectly, depend from claims 1, 4, and 11, they are believed to be allowable for at least the same reasons claims 1, 4, and 11 are believed to be allowable.

New Claims

Claims 23 and 24 are added to further protect aspects of the present invention. Claims 23 and 24 depend from claims 1 and 4, respectively, and they are believed to be allowable for at least the same reasons claims 1 and 4 are believed to be allowable. Moreover, claims 23 and 24 are further distinguished from the references of record.

In particular, claims 23 and 24 recite, the reduced number of gaps between the Bi2223 phase crystals are less than a number of gaps between the Bi2223 phase crystals prior to the heat treatment. The references of record fail to teach or suggest a reduction in the number of gaps after heat treatment. In particular, as discussed above, Li et al. focuses on the number of gaps prior to heat treatment. Therefore, claims 23 and 24 are believed to be allowable.

Concluding Remarks

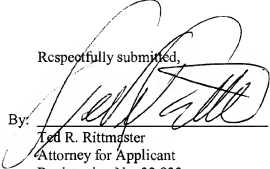
After amending the claims as set forth above claims 1-24 are pending.

Applicants believe that the present application is in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested. The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by the credit card payment instructions in EFS-Web being incorrect or absent, resulting in a rejected or incorrect credit card transaction, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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